

ABSTRACT OF THE DISCLOSURE

[0068] Embodiments of the invention provide methods and apparatuses for illuminating the surface of a wheel with one or more light source assemblies positioned within the rotating reference frame of the wheel. The amount of light from the light source assemblies reflected from the wheel surface is greater than the amount of light, from the light source assemblies, that is directed away from the wheel surface. The light source assemblies may include a shield to reduce the amount of light that is directed away from the wheel surface. The light source assemblies may include various light-directing devices to direct light toward the wheel surface and to help reduce the amount of light from the light source assemblies, that is directed away from the wheel surface. The surface of the wheel may be modified to help direct the light, reflected from the wheel surface, to a specified observation region.